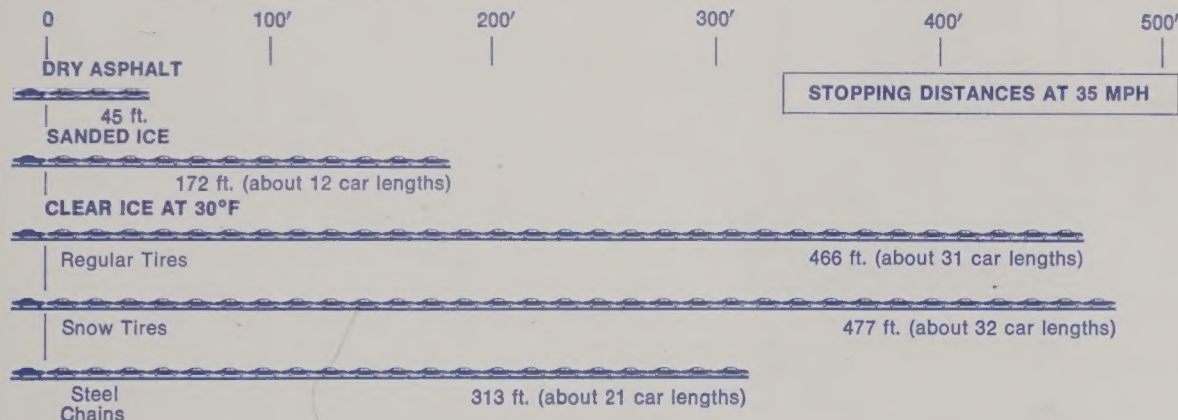


Consistent with the public interest in effective aids for winter driving the Canada Safety Council and the Ontario Provincial Police have run performance tests with regular highway tires, studded and unstudded snow tires and various tire attachments on ice and in snow. Here are some of the more important facts they found out.

VF



### STOPPING ABILITY

Good drivers drive at lower speeds on ice especially when the ice is near the melting point. On ice, no matter what type of tire, a car has to travel at less than 20 mph to stop in the same distance (about 120 feet) as a car driven on bare pavement at 50 mph.

As speed increases so do stopping distances, so that it can take almost 800 ft. to stop at 50 mph with regular or snow tires. Stopping distances on ice are always 5 to 10 times greater than those on bare pavement irrespective of the type of tire or tire attachment.

The most effective way of reducing these stopping distances on ice is by sanding the ice which shortens stopping distances almost to one-half for all types of tires when the ice is near freezing point. Sanding is less effective at lower temperatures.

Remember that pumping your brakes will help directional control, though it may not reduce the total stopping distance. Also, your reaction time must be taken into account.

### CHANGING LANES

Changing lanes or direction on ice can be hazardous. In the tests no type of tire could make a lane change manoeuvre on ice at more than 18 mph. The same manoeuvre can be done at 60 mph on bare pavement. Most tires could only avoid skidding or sliding at up to 12-15 mph.

### STARTING TRACTION

Starting traction was measured to judge ability to get moving on ice or loosely packed snow. In both cases properly adjusted steel chains give the best performance by far and there is little difference between regular and snow tires. However snow tires are known to be more effective in loose fresh snow than regular tires, though this was not tested.

### THE USE OF STUDDED TIRES IS ILLEGAL IN ONTARIO

The Canada Safety Council Tests showed that, while studded tires do reduce stopping distances on ice near the freezing point, especially when fitted on all 4 wheels, they may increase stopping distances at zero degrees F. on ice and on bare concrete pavement (wet or dry). The wearing action of studded tires on bare pavement causes wheel ruts in which water may pond and removes the skid resisting surface texture of concrete pavement, both of which increase the risk of loss of control and skidding in wet weather. The erosion of traffic markings by studded tires also creates another year round hazard to safe driving.

But you can obtain the advantages of studded tires without any of the disadvantages. If you drive with regular or snow tires at 40 mph, you can stop in the same distance as you could have stopped with 4 studded tires at 50 mph. At lower speeds or with studded tires on the rear only, the difference is even less than 10 mph.

# Winter Driving

CA20N

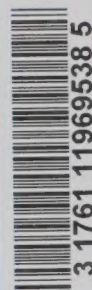
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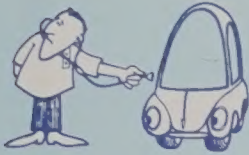
UNIVERSITY OF TORONTO



## Requires Special Skills And Knowledge



## TREAT YOUR CAR TO A CHECK-UP



Cold weather puts extra demands on your car. Some points to check...

**BRAKES** ... properly adjusted, good linings.

**LIGHTS** ... all lights working, headlights aimed properly.

**BATTERY** ... tired batteries die in cold weather.

**TIRES** ... good tread on regular tires or, better still, snow tires. Bald tires can't grip on ice and snow.

**WINDSHIELD WIPERS** ... good tension and, in the washers, some anti-freeze.

**MUFFLER and TAIL PIPE** ... a faulty exhaust, leaking carbon monoxide, could kill you.

**ENGINE TUNE-UP** ... for colder weather.

## GET OFF TO A GOOD START: Slow and easy does it!

On packed snow or ice, start in second gear with manual shift, in drive with automatic. Start gently and gradually.

In deep snow, turn your wheels a few times to clear a space. Then straighten them and start gently. Gunning the motor spins



the wheels and turns snow to ice. If the car won't move, follow your car manual for rocking procedure.



## JACK RABBIT STARTS CAUSE WHEELS TO SPIN!

## WATCH OUT FOR TEMPERATURE CHANGES.....AND TEMPERATURE TRAPS!



Ice is more slippery near the melting point than it is at lower temperatures.

## KEEP GOING ON HILLS

If you have to stop on a hill, you may not have enough traction to get moving again. It's better to start in a lower gear and keep moving.

## ALWAYS KEEP ONE WINDOW OPEN A LITTLE AT ALL TIMES

It will prevent windows from fogging while you drive and from frosting when parked. And it might save you from carbon monoxide poisoning.

## PACK YOUR TRUNK FOR EMERGENCIES

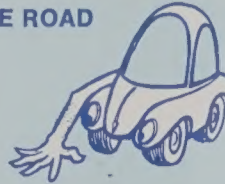


A shovel, bag of sand or ashes, tire chains, traction plates, windshield scrapers could save a tow truck bill.

## MAKE SURE WINDOWS ARE CLEAR

## GET THE FEEL OF THE ROAD

Start out slowly and smoothly. As soon as traffic permits, try your steering, gas and brakes to get the feel of the road.



## KEEP A BIGGER CUSHION OF SAFETY



Stopping takes longer on winter roads. And, you may not spot a hazard as quickly when visibility is poor.

You need more stopping room between cars.

## IF YOU DO HAVE TO STOP IN A HURRY

Pump the brakes. Jamming them on can lock the wheels and cause a skid.



## IF YOUR CAR STARTS TO SKID

Turn the front wheels in the direction the back end is swinging.

Watch out for shady spots where ice may stay longer after the sun has dried the rest of the road. Bridge decks ice first as the temperature falls.



## ROAD CONDITION REPORTS

Winter road condition reports are available 24 hours a day between November and April by telephoning the nearest Ontario Ministry of Transportation and Communications office. Information can be obtained on weather and road conditions in any part of the Province before starting out on your trip from any of the offices listed below:

BANCROFT	332-3220	NORTH BAY	474-0044
BURLINGTON	637-5625	OTTAWA	745-7049
CHATHAM	354-1400	OWEN SOUND	376-7350
COCHRANE	272-4333	PORT HOPE	885-6381
HAMILTON	527-9131	SAULT STE. MARIE	256-5682
HUNTSVILLE	789-2391	STRATFORD	271-3550
KENORA	468-6494	SUDBURY	522-9380
KINGSTON	544-2220	THUNDER BAY	577-6451
LONDON	451-5160	TORONTO	248-3561

These were the conditions experienced the winter of 1973-74 on roads maintained by the Ministry.

## ONTARIO

	S. West South East %*	West Cent. %*	North N. West %*	Avg. %*
BARE WET	29.3	24.6	10.2	22.6
BARE DRY	55.4	38.0	33.9	44.5
SNOWY OR SLUSHY	14.3	35.2	51.7	30.5
ICY	1.4	2.2	4.2	2.4

\*Percentages are based on the number of days times the number of miles for which each condition prevailed.



Ontario

Ministry of  
Transportation and  
Communications